MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
OPERATING PERMIT TECHNICAL REVIEW DOCUMENT

Permitting and Compliance Division
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Fiberglass Structures, Inc.
Tank Division
1202 Railroad Street,
Laurel, MT 59044

The following table summarizes the air quality programs testing, monitoring, and reporting requirements applicable to this facility.

Facility Compliance Requirements	Yes	No	Comments
Source Tests Required	X		Method 9
Ambient Monitoring Required		X	
COMS Required		X	
CEMS Required		X	
Schedule of Compliance Required		X	
Annual Compliance Certification and Semiannual Reporting Required	X		As applicable
Monthly Reporting Required		X	
Quarterly Reporting Required		X	
Applicable Air Quality Programs			
ARM Subchapter 7 Preconstruction Permitting	X		MAQP #3821-00
New Source Performance Standards (NSPS)		X	
National Emission Standards for Hazardous Air Pollutants (NESHAPS)	X		40 CFR 63 Subpart WWWW
Maximum Achievable Control Technology (MACT)	X		40 CFR 63, Subpart WWWW
Major New Source Review (NSR) – includes Prevention of Significant Deterioration (PSD) and/or Non-attainment Area (NAA) NSR		X	
Risk Management Plan Required (RMP)		X	
Acid Rain Title IV		X	
Compliance Assurance Monitoring (CAM)		X	
State Implementation Plan (SIP)	X		General SIP

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SECTION I. GENERAL INFORMATION

A. Purpose

This document establishes the basis for the decisions made regarding the applicable requirements, monitoring plan, and compliance status of emission units affected by the operating permit proposed for this facility. The document is intended for reference during review of the proposed permit by the U.S. Environmental Protection Agency (EPA) and the public. It is also intended to provide background information not included in the operating permit and to document issues that may become important during modifications or renewals of the permit. Conclusions in this document are based on information provided in the original application submitted by Fiberglass Structures, Inc. (FSI) on April 17, 2006, with additional submittals on: May 26, 2006, July 11, 2006, July 18, 2006, and July 20, 2006.

B. Facility Location

The Tank Division of FSI is located in Section 16, Township 2 South, Range 24 East, Yellowstone County. The physical address is 1202 East Railroad Street in Laurel, Montana.

C. Facility Background Information

Montana Air Quality Permit

Montana Air Quality Permit #3821-00 was issued to FSI on September 28, 2006, to operate a manufacturing facility that produces fiberglass reinforced products for a variety of purposes.

Facility History

FSI was issued Montana Air Quality Permit (MAQP) #3343-00 on August 10, 2004, and the subsequent Operating Permit (OP) #3343-00 on January 22, 2005. At that time, FSI consisted of one multi-color system-one gelcoat unit, a venus chopper hoop winder, and four venus chopper guns. On or about February 15, 2006, FSI moved some of the permitted equipment into a new building (herein referred to as the Tank Division) without first obtaining an air quality permit. The Tank Division property was not located contiguous to the Main Building and therefore was required to obtain a separate permit for the new facility. The Department of Environmental Quality (Department) issued a violation (violation #VLRG0609) to FSI for construction without an air quality permit on June 21, 2006.

After realizing that FSI had violated the Administrative Rules of Montana (ARM) 17.8.743(1), FSI submitted two Air Quality Permit applications on April 17, 2006, to the Department: one to amend MAQP #3343-00 to reflect the removal of equipment (venus chopper hoop winder), and one to create the Tank Division.

The Tank Division's permit application to conduct spray painting primarily on large and medium sized tanks was deemed complete on April 17, 2006. The Tank Division consists of the following equipment: one venus automatic chop hoop winder and one venus chopper gun. The MAQP #3821-00 for the Tank Division was finalized on September 28, 2006, and the amendment for the Main Building, MAQP #3343-01, was finalized on November 4, 2006.

D. Taking and Damaging Analysis

HB 311, the Montana Private Property Assessment Act, requires analysis of every proposed state agency administrative rule, policy, permit condition or permit denial, pertaining to an environmental matter, to determine whether the state action constitutes a taking or damaging of private real property

that requires compensation under the Montana or U.S. Constitution. As part of issuing an operating permit, the Department is required to complete a Taking and Damaging Checklist. As required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications. The checklist was completed on May 2, 2006.

E. Compliance Designation

The Tank Division of FSI is a new source and no formal inspection of the facility has yet to occur.

SECTION II. SUMMARY OF EMISSION UNITS

A. Facility Process Description

FSI manufactures fiberglass reinforced products (FRP) for a variety of purposes. All of the products are produced as corrosion-resistant or high-strength, open molding manufacture, via a combination of mechanical or manual methods. Volatile Organic Compound (VOC) emissions, primarily styrene, result from the product manufacturing process. Styrene is a listed Hazardous Air Pollutant (HAP).

There are six primary steps completed in the FRP process, which include: plug fabrication; mold construction; wax or prep mold; gel coat application; laminate; and part removal/finish trim. The first step is fabrication of a plug, typically from wood. After generating the rough shape, the plug is coated with primer. A mold release compound (wax) is applied by hand. To make the mold, laminate (polyester resin, catalyst, and glass fibers) is then applied to the plug. The plug is removed, and the mold is then prepared for production by waxing the surface with the mold release wax.

To produce the tanks or other fiberglass products, laminate is applied to the mold. FSI conducts mostly mechanical applications, although manual applications are occasionally used. Of the two mechanical methods, the Chop Hoop Winder is the predominant equipment used at FSI's Tank Division. It is a high volume, low pressure (HVLP) non-atomizing spray unit, and is used only for manufacturing large and medium sized tanks. The Chopper Gun is also a HVLP non-atomizing unit, but is mostly used for a variety of smaller products. Both spray a shaped stream of resin and catalyst, mixing externally with glass fibers fed through a chopper wheel. Depending upon the resin type and the product, the laminate is allowed to cure before removal from the mold. Acetone, which is not a VOC, is used for cleaning the application equipment.

B. Emission Units and Pollution Control Device Identification

The emission units regulated by this permit are as follows (ARM 17.8.1211):

Emissions Unit ID	Description	Pollution Control Device/Practice
EU001	Building Exhaust (Automatic Chop Hoop Winder & Chopper gun)	None

C. Categorically Insignificant Sources/Activities

The ARM 17.8.1201(22)(a) defines an insignificant emissions unit as one that emits less than 5 tons per year of any regulated pollutant, has the potential to emit less than 500 pounds per year of lead or any hazardous air pollutant, and is not regulated by an applicable requirement other than a generally applicable requirement.

Fiberglass Structures did not provide a list of insignificant sources or activities. Therefore, this permit identifies no insignificant activities. Because there are no requirements to update such a list, the status of such emission units or activities may change

SECTION III. PERMIT CONDITIONS

A. Emission Limits and Standards

The manufacturing of FRP at FSI utilizes thermoset resins that contain styrene. VOC emissions, primarily styrene, result from the manufacturing process. Styrene is a listed HAP. All materials produced at FSI were characterized as "corrosion-resistant and/or high strength" due to properties for each product. At the present time, all resins used are considered "non-suppressed."

The VOC emissions for this facility are limited to 30.9 tons during any rolling 12-month time period (ARM 17.8.752). In addition, this facility shall not exceed the applicable organic HAP emission limit listed in Table 3 of 40 CFR 63, Subpart WWWW on a 12-month rolling basis. This facility was characterized as open-molding, corrosion-resistant, and/or high-strength, and the following limits apply: 112 pounds HAP/ton of resin (lb/ton) for mechanical resin application, and 123 lb/ton for manual resin application.

FSI shall comply with all applicable standards and limitations contained in 40 CFR 63, Subpart WWWW, including work practice standards as specified in Table 4.

B. Monitoring Requirements

ARM 17.8.1212(1) requires that all monitoring and analysis procedures or test methods required under applicable requirements are contained in operating permits. In addition, when the applicable requirement does not require periodic testing or monitoring, periodic monitoring must be prescribed that is sufficient to yield reliable data from the relevant time period that is representative of the source's compliance with the permit.

The requirements for testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance do not require the permit to impose the same level of rigor for all emissions units. Furthermore, they do not require extensive testing or monitoring to assure compliance with the applicable requirements for emission units that do not have significant potential to violate emission limitations or other requirements under normal operating conditions. When compliance with the underlying applicable requirement for a insignificant emissions unit is not threatened by lack of regular monitoring and when periodic testing or monitoring is not otherwise required by the applicable requirement, the status quo **(i.e., no monitoring)** will meet the requirements of ARM 17.8.1212(1). Therefore, the permit does not include monitoring for insignificant emission units.

The permit includes periodic monitoring or recordkeeping for each applicable requirement. The information obtained from the monitoring and recordkeeping will be used by the permittee to periodically certify compliance with the emission limits and standards. However, the Department may request additional testing to determine compliance with the emission limits and standards.

C. Test Methods and Procedures

The operating permit may not require testing for all sources if routine monitoring is used to determine compliance, but the Department has the authority to require testing if deemed necessary to determine compliance with an emission limit or standard. In addition, the permittee may elect to voluntarily conduct compliance testing to confirm its compliance status.

D. Recordkeeping Requirements

FSI is required to keep all records listed in the operating permit as a permanent business record for at least five years following the date of the generation of the record.

E. Reporting Requirements

Reporting requirements are included in the permit for each emissions unit and Section V of the operating permit "General Conditions" explains the reporting requirements. However, the permittee is required to submit semi-annual and annual monitoring reports to the Department and to annually certify compliance with the applicable requirements contained in the permit. The reports must include a list of all emission limits and monitoring deviations, the reason for any deviation, and the corrective action taken as a result of any deviation.

F. Public Notice

In accordance with ARM 17.8.132, a public notice was published in the *Billings Gazette* newspaper on or before April 18, 2007. The Department provided a 30-day public comment period on the draft operating permit from April 18, 2007, to May 18, 2007. ARM 17.8.1232 requires the Department to keep a record of both comments and issues raised during the public participation process.

G. Draft Permit Comments

The Department did not receive any comments during the public comment period.

SECTION IV. NON-APPLICABLE REQUIREMENT ANALYSIS

FSI did no request a shield from any of the air quality Administrative Rules of Montana (ARM) or federal regulations (pursuant to ARM 17.8.1214). Therefore, no further analysis of non-applicable requirements is necessary.

SECTION V. FUTURE PERMIT CONSIDERATIONS

A. MACT/NESHAP Standards

By definition, the owner or operator of a composite fabrication plant that is a major source of HAPs is subject to MACT WWWW. Major sources for HAPs are defined as those that emit more than 10 tons per year (tpy) of a single HAP, or 25 tpy of multiple HAPs. EPA has promulgated this MACT and the rule became effective on April 23, 2003. FSI manufactures FRP and is categorized as a *Reinforced plastic composites production*. By definition, *Reinforced plastic composites production* refers to manufacturing products and molding compounds that use thermoset resins or gel coats containing styrene. Based on company information and calculations using EPA emission factors, the Department determined that FSI is a major source of HAPs and is subject to the provisions of 40 CFR 63, Subpart WWWW.

B. NSPS Standards

As of April 18, 2007, the Department is unaware of any currently applicable or future NSPS Standards that may be promulgated that will affect this facility.

C. Risk Management Plan

As of April 18, 2007**,** this facility does not exceed the minimum threshold quantities for any regulated substance listed in 40 CFR 68.115 for any facility process. Consequently, this facility is not required to submit a Risk Management Plan.

If a facility has more than a threshold quantity of a regulated substance in a process, the facility must comply with 40 CFR 68 requirements no later than June 21, 1999; three years after the date on which a regulated substance is first listed under 40 CFR 68.130; or the date on which a regulated substance is first present in more than a threshold quantity in a process, whichever is later.